

REMARKS

Claims 19-37 are currently pending. Claim 19 has been amended for clarification only. It is respectfully submitted that no new matter has been added.

The Patent Office rejected claims 19-21, 23, 26, 29, 30, 32, and 35 under 35 U.S.C. 102(b) as being anticipated by Martino, U.S. Patent No. 6,061,646.

For a claim to be anticipated, each and every non-inherent claim limitation must generally be taught by a single reference. (From MPEP 2131)

There are three independent claims: 19, 26, and 32.

Claim 19 recites as follows:

An electronic device, comprising: at least one user interface, said at least one user interface comprising a speech recognition system; and a memory that stores a data structure that comprises a plurality of language packages, each of said plurality of language packages having associated therewith with a plurality of languages, where at least some of said plurality of languages are associated with more than one of said plurality of language packages, where one of said plurality of language packages is arranged to be selected for use by said speech recognition system when recognizing a user's speech; said device being arranged to register at least a first language for said at least one user interface and, on the basis of at least the registered first language, to automatically perform a selection from said data structure of one of said plurality of language packages for use by said speech recognition system.

Claim 26 recites as follows:

A method, comprising: providing in an electronic device having at least one user interface and a memory that stores a data structure that comprises a plurality of language packages, each of said plurality of language packages having associated therewith with a plurality of languages, where at least some of said plurality of languages are associated with more than one of said plurality of language packages, where one of said plurality of language packages is arranged to be selected for use by a speech recognition system when recognizing a user's speech; registering at least a first language for said at least one user interface; and on the basis of at least the registered first language, automatically selecting from said data structure one of said plurality of language packages for use by said speech recognition system.

Claim 32 recites as follows:

A memory that stores instructions, the memory comprising part of an electronic device having at least one user interface, the execution of said instructions resulting in operations that comprise: registering at least a first language for said at least one user interface; and on the basis of at least the registered first language, automatically selecting from a data structure stored in said device one of a plurality of language packages for use by a speech recognition system of said device, where each of said plurality of language packages has associated therewith with a plurality of languages, and where at least some of said plurality of languages are associated with more than one of said plurality of language packages.

The independent claims were all rejected by Martino, column 9, line 54, through column 10, line 17, and Figure 3.

Martino, in the passage from column 9, line 54, through column 10, line 17, discloses as follows:

FIG. 4 is a flow diagram for one preferred method of operation for the multilingual kiosk. In step 201, the device is initialized. All eight of the speech engines are readied to accept an utterance input. The Language Recognition Dictionaries are loaded. The much larger Speech Recognition Dictionaries (SRD) and the Genre Recognition Dictionaries (GRD) are not. The GRDs are application specific words which are associated with the use of a more general purpose mechanism. In a train station, for example, "track", "depart" and "gate" may be more easily found or have alternative representation than in the SRDs. One of the larger dictionaries will come into play after the natural language has been determined, whereupon it will be loaded for the recognized language of the eight languages. These LRDs will be built from the most frequently occurring words in each of the languages. It is expected that the LRDs need only recognize fairly short utterances, at least for the initial transaction, the LRDs will contain enough words to provide recognition for 40 percent of each language. As noted in the Italian and English statistics above, for written languages, the upper bound will be somewhere from about 50 English words to 150 Italian words and will vary from language to language. For specialized dictionaries for specific tasks, it is also likely to vary. It is unlikely in the extreme that more than 300 words would be required to obtain this coverage for any language. Based on the inventors work, English, German, Dutch, Danish, French, Spanish, Portuguese and Italian can be easily supported by the invention. These represent the Romance and Germanic languages. Other language groups to support are the ideographic languages, i.e. Chinese, Japanese & Korean and the Slavic languages, e.g., Polish, Russian, Czech or Slovak.

Martino discloses eight speech engines (step 201) where each speech engine is configured to accept an utterance input. Then, Martino discloses Language Recognition Dictionaries are loaded. According to drawing Figure 3, each Language Recognition Dictionary appears to correspond to one and only one language and each language has only one corresponding LRD. As described in column 9, lines 34-43, a recognized utterance is input to a language recognizer module for all the languages. Although Martino, in column 9, lines 6-13, discloses a speech recognition engine may be used for related languages, such as one for Romance languages grouped together and one for Germanic languages, Martino does not disclose that the individual languages form language packages. This is indicated in column 9, lines 16-19, which discloses "In the alternative embodiment, where a single speech recognition engine is used for the language recognition task, multiple LRDs are associated with the speech engine."

As shown in Figure 3, the language recognizer 181 provides an input to the retrieval module 183. Martino discloses, in column 9, lines 37-40, "Once the natural language is recognized, a retrieval module retrieves the speech recognition dictionary (SRD) for the natural language of the utterance from among the SRDs 184-192 for each supported language." Martino's disclosure of "it is possible... additional modules might be retrieved at this point" appears to relate to modules that correspond to the one recognized language.

Claim 1 recites "said device being arranged to register at least a first language for said at least one user interface and, on the basis of at least the registered first language, to automatically perform a selection from said data structure of one of said plurality of language packages for use by said speech recognition system." Martino in column 8, lines 44-45, discloses that the "customer would choose among the available languages prior to beginning his transaction." If this choice by the customer is considered to be registration of a first language, then it is not seen where Martino discloses "on the basis of at least the registered first language, to automatically perform a selection from said data structure of one of said plurality of language packages for use by said speech recognition system" because Martino appears to be set up to always present the same set of language recognition dictionaries 171-178.

It is clear that Martino does not disclose "a plurality of language packages," does not disclose "at least some of said plurality of languages are associated with more than one of said

plurality of languages,” and does not disclose “on the basis of at least the registered first language, to automatically perform a selection from said data structure of one of said plurality of language packages for use by said speech recognition system.”

As such, Martino does not anticipate any of claims 19-21, 23, 26, 29, 30, 32, and 35.

The Patent Office rejected claims 22, 24, 25, 27, 28, 31, 33, 34, 36, and 37 under 35 U.S.C. 103(a) as being unpatentable over Martino, in view of Kitahara, U.S. Patent No. 7,130,801.

Claim 22 recites “where the first language is a selected device control user interface language, and where the second language is a selected graphical user interface language.”

Claim 22 depends from claim 20. Claim 20 recites “where if the registered first language is associated with more than one of said plurality of language packages, said device is arranged to register in addition a second language and, on the basis of the first and second registered languages, to automatically select one of said plurality of language packages.” The Patent Office asserted that claim 20 subject matter was taught by Martino, column 9, line 54, through column 10, line 17, the same passage used to reject base claim 19. The portion of this passage that most closely resembles this claimed subject matter is as follows: “Based on the inventors work, English, German, Dutch, Danish, French, Spanish, Portuguese and Italian can be easily supported by the invention. These represent the Romance and Germanic languages. Other language groups to support are the ideographic languages... and the Slavic languages...” The passage from Martino does not disclose this claimed subject matter as there is no disclosure that a device is arranged to register in addition a second language and “on the basis of the first and second registered languages, to automatically select one of said plurality of language packages.” Also, Martino’s disclosure that languages may be grouped (column 9, lines 8-13) refers to multiple languages using a single speech recognition engine and does not correspond to those languages being arranged in a language package.

Kitahara, in column 1, line 54, through column 2, line 11, discloses an “automatic interpretation server” which allows the user to select from a “language classification menu the language into which the translation is to be performed.” Figure 5 of Kitahara shows that a user may select via a list of options a source language and a target language for translation. There does not appear to be disclosure of language packages in Kitahara. This presentation of source

and target language options also does not correspond to the claimed subject matter of “on the basis of at least the registered first language, to automatically perform a selection from said data structure of one of said plurality of language packages for use by said speech recognition system.” Also, Kitahara does not disclose “at least some of said plurality of languages are associated with more than one of said plurality of languages.”

Because neither Kitahara nor Martino discloses or suggests “a plurality of language packages,” “at least some of said plurality of languages are associated with more than one of said plurality of languages,” and “on the basis of at least the registered first language, to automatically perform a selection from said data structure of one of said plurality of language packages for use by said speech recognition system,” no purported combination of these references would disclose or suggest this claimed subject matter.

Thus, claim 22 is not made obvious by Martino in view of Kitahara.

Claim 24, 31, and 36 recite, similarly or identically, as follows: “where voice user interface language and user interface language combinations are arranged in the look-up table, where one of the plurality of language packages that is suitable for selection for each voice user interface language and user interface language combination is linked.” Kitahara does not show a look-up table for languages in Figures 10 or 11; however, in Figure 12, there are a list of entries where each entry pairs two languages. Kitahara’s disclosure does not correspond to disclosure of “where one of the plurality of language packages that is suitable for selection for each voice user interface language and user interface language combination is linked.”

Furthermore, the above noted mutual deficiencies of Kitahara and Martino have been noted above.

Thus, claims 24, 31, and 36 are not made obvious by Martino in view of Kitahara.

Claims 25 and 37 recite, similarly or identically, as follows: “where said device is embodied as a mobile station.” Kitahara discloses that language interpretation occurs in an automatic interpretation server 1000 that interfaces with a mobile device 1 (see Figure 1), but not a mobile station that has a memory that stores a data structure that comprises a plurality of language packages. Thus, claims 25 and 37 are allowable over Martino in view of Kitahara for this additional reason as well as for the reasons provided above.

Claims 27 and 33 recite, similarly or identically, as follows:

where there are a plurality of user interfaces comprising at least a device control user interface and a graphical user interface, further comprising a user selecting a language for each of the plurality of user interfaces, and where automatically selecting selects one appropriate language package from the data structure in accordance with the user-selected languages.

Since neither Martino nor Kitahara disclose or suggest language packages, no purported combination of Martino and Kitahara would disclose or suggest “further comprising a user selecting a language for each of the plurality of user interfaces, and where automatically selecting selects one appropriate language package from the data structure in accordance with the user-selected languages.”

Thus, claims 27 and 33 are not made obvious over Martino in view of Kitahara for this additional reason.

Claims 28 and 34 recite, similarly or identically, as follows:

where a first language is selected for a first user interface and if the selected first language is associated with a single language package, the single language package is automatically selected on the basis of the selected first registered language; and where if the selected first language is associated with more than one language package, further comprising selecting a second language for a second user interface, and where the one language package is automatically selected on the basis of the selected first and second languages.

As discussed above, neither Martino nor Kitahara disclose or suggest language packages.

Thus, claims 28 and 34 are not made obvious by Martino in view of Kitahara.

The Patent Office is respectfully requested to reconsider and remove the rejections of the claims as now presented for examination under 35 USC 102(b) and 35 USC 103(a), and to allow all of the pending claims 19-37. An early notification of the allowability of claims 19-37 is earnestly solicited.



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REMARKS

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